Policy-Level Performance Level Definitions

For each subject area, there are students performing along a proficiency continuum with regard to the skills and knowledge necessary to meet the demands of Common Core Learning Standards for Mathematics. There are students who are exceed the expectations of the standards, students meet the expectations, students who partially meet the expectations, and students who do not demonstrate sufficient knowledge or skills required for any performance level. New York State assessments are designed to classify students into one of four proficiency categories; th

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Domain	NYS Level 5	NYS Level 4	NYS Level 3	NYS Level 2	NYS Level 1
The Real Number	**Generalize** and explain	Calculate sums and	Calculate sums and	**Distinguish between**	**Identify and order**

Domain	NYS Level 5	NYS Level 4	NYS Level 3	NYS Level 2	NYS Level 1
Seeing Structure in Expressions (A-SSE)	**Explain different interpretations** of expressions. Find the most appropriate form of a quadratic function to solve real-world or mathema s 0 T(Level)ps.t211elyfb t81/HBC 2111 **solve .151 TD[(quadratic fun)4.6(c)05**				

Domain	NYS Level 5	NYS Level 4	NYS Level 3	NYS Level 2	NYS Level 1
Arithmetic with Polynomials	**Explain and/or show generally** that	Perform addition, subtraction, and	Perform **addition, subtraction, and**	Perform **addition and subtraction** with linear	Perform **addition** with linear expressions.

Domain	NYS Level 5	NYS Level 4	NYS Level 3	NYS Level 2	NYS Level 1
Reasoning with Equations and Inequalities (A-REI)	**Predict, without solving,** when a quadratic equation will have no real solutions and explain reasoning with algebraic or graphical evidence.	Solve quadratic equations in one variable **and recognize cases in which a quadratic equation has no real solutions.**	Solve quadratic equations in one variable **with real roots using an appropriate method.**	Verify that a number is a solution to a quadratic equation.	Select solution strategies.
	Solve linear equations and inequalities and construct a viable argument to justify the advantages of one particular method over another.	Solve linear equations and inequalities in one variable, **including equations with coefficients represented by letters.**	**Solve linear equations and inequalities** in one variable.	**Solve one- and two-step linear equations** in one variable.	**Verify a solution to one- and two-step linear equations** in one variable.
		Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.		Given a system of linear equations in two variables and the solution, **verify the solution algebraically.**	Identify the solution to a system of linear equations **from a graph.**

Domain	NYS Level 5	NYS Level 4	NYS Level 3	NYS Level 2	NYS Level 1
(A-REI continued)	Explain why the graph of an equation in two variables is the set of all its solutions. Represent coincidental linear equations as multiples of each other.	**Explain why** the *x*-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$. (Functions are limited to **linear, polynomial, rational, or absolute value**.)	Given a system of linear equations **with integer coefficients in two variables**, solve the system exactly or approximately. Approximate the solution(s) to $f(x) = g(x)$, where $f(x)$ and $g(x)$ are **first- and second-degree polynomial functions.**	Approximate the solution(s) to $f(x) = g(x)$, where $f(x)$ and $g(x)$ are **linear functions.**	Given a graph of $y = g(x)$ and $y = f(x)$ (not limited to linear functions), **use integer-valued coordinates to name a point of intersection.**
	Explain why there are multiple solutions to a system of inequalities.	Graph the solutions to a linear inequality in two variables as a half-plane **and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.**	Graph the solutions to a linear inequality in two variables as a half-plane using a graphing calculator.	Given the graph of an inequality (or system of inequalities), **generate a point(s) in the solution set.**	Given the graph of an inequality (or system of inequalities), **identify whether a point is in the solution set.**
Interpreting Functions					

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Domain	NYS Level 5	NYS Level 4	NYS Level 3	NYS Level 2	NYS Level 1
(F-IF continued)		Evaluate functions. **Identify the domain and range from a graph** and **interpret statements that use function** notation in terms of a context.	Identify the domain from **a graph or table of values**. **Interpret statements that** use function notation.	**Identify the domain of a linear function** given a table of values.	
	Explain how and why explicit and recursive formulas define the same sequence and relate these representations to a context.	**Identify a recursively defined sequence as a function** and determine its n^{th} term.	**Identify an explicitly defined sequence** as a function and determine its n^{th} term.	**Identify and continue patterns** of arithmetic sequences.	

Domain	NYS Level 5	NYS Level 4	NYS Level 3	NYS Level 2	NYS Level 1
(F-BF continued)	Given the equation of a transformed linear or quadratic function, **create an appropriate graph and interpret the transformations.**	Identify the effect on a graph of **replacing *f*(*x*) with *f*(*x*) + *k*, *k f*(*x*), *f*(*kx*), and *f*(*x* + *k*). Find the value of k given the graphs.**	Identify the effect on a graph of **replacing *f*(*x*) with *k f*(*x*), *f*(*kx*), and *f*(*x* + *k*) for specific values of *k* (both positive and negative integers).**	Identify the effect on a graph of **replacing *f*(*x*) with *f*(*x*) + *k* where *k* is a positive or negative integer and replacing *f*(*x*) with *kf*(*x*) where *k* is a positive integer.**	Identify the effect on a graph of **replacing *f*(*x*) with *f*(*x*) + *k* where *k* is a positive integer.**
Linear,					

